

## ABSTRACT

The invention provides polishing pads for chemical-mechanical polishing comprising a porous foam and a method for their production. In one embodiment, the porous foam has an average pore size of about 50  $\mu\text{m}$  or less, wherein about 75% or more of the pores have a pore size within about 20  $\mu\text{m}$  or less of the average pore size. In another embodiment, porous foam has an average pore size of about 20  $\mu\text{m}$  or less. In yet another embodiment, the porous foam has a multi-modal pore size distribution. The method of production comprises (a) combining a polymer resin with a supercritical gas to produce a single-phase solution and (b) forming a polishing pad from the single-phase solution, wherein the supercritical gas is generated by subjecting a gas to an elevated temperature and pressure.